Single-phase AC-coupled Inverter Datasheet

HAS-3.0LV-EUG1
HAS-3.6LV-EUG1
HAS-4.6LV-EUG1
HAS-5.0LV-EUG1

Description

The HAS-LV-EUG1 Series is designed for retrofitting PV systems, including power classes ranging from 3 kW to 5 kW. It can be installed with existing PV inverters, forming an AC coupling system.

The intelligent EMS function supports self-consumption mode, economic mode, and backup mode for multi-scenario applications.

Moreover, the remote monitoring management through S-Miles Cloud allows users to track the full status of the system operation over time, maximizing power and energy utilization.

Features

01	Intelligent export limitation
02	Compatible with multiple batteries, providing users with more choices
03	UPS level switching time <10 ms
04	Ultralight for easy installation and space-saving
05	Built-in dry contact flexibly monitors earth fault alarm and provides load control or generator control
06	Max. 10 parallel inverters

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Technical Specifications

Model	HAS-3.0LV-EUG1	HAS-3.6LV-EUG1	HAS-4.6LV-EUG1	HAS-5.0LV-EUG1
Battery				
Battery type	Li-ion/Lead-acid			
Battery voltage range (V)	40-60			
Max. charge/discharge current (A)	75/75	90/90	100/100	100/100
Max. charge/discharge power (W)	3000/3000	3600/3600	4600/4600	5000/5000
Charging strategy for Li-ion battery	Self-adaption to BMS			
Charging curve	3 Stages/Equalization			
External temperature sensor	Optional			
Communication	CAN, RS485			
AC Input and Output (On-grid)				
Rated output power (W)	3000	3680	4600	5000[1]
Max. output apparent power (VA)	3000	3680	4600[2]	5000[1][2]
Max. input power (W)	6000	7360	7360	7360
Grid form	L/N/PE			
Rated AC output voltage/Range (V)	230, 161-276			
Rated grid frequency (Hz)	50/60			
Max. output current (A)	13.0	16.0	20.0	21.7
Max. input current (A)	26.1	32.0	32.0	32.0
Power factor	>0.99 (0.8 leading ... 0.8 lagging)			
THDi (@rated output)	<3%			
AC Output (Off-grid)				
Rated output power (W)	3000	3680	4600	5000
Max. output apparent power (VA)	3300, 10s	4048, 10s	5060, 10s	5500, 10s
Back-up switch time (ms)	<10			
Grid form	L/N/PE			
Rated output voltage (V)	230			
Rated output frequency (Hz)	50/60			
Max. continuous output current (A)	13.0	16.0	20.0	21.7
THDv (@linear load)	<3%			
Efficiency				
Max. efficiency	95.2%	95.2%	95.2%	95.2%
Protection				
Anti-islanding protection	Integrated			
AC over current protection	Integrated			
AC short current protection	Integrated			
AC overvoltage and undervoltage protection	Integrated			
Surge protection	DC Type II/AC Type III			
General				
Dimensions (W × H × D [mm])	502 × 461 × 202			
Weight (kg)	21			
Mounting	Wall Mounting			
Operating temperature (°C)	-25 to +65 (>45, derating)			
Relative humidity	0-95%, no condensing			
Cooling	Natural Convection			
Topology (Battery)	High-frequency Isolation			
Altitude (m)	≤2000			
Protection degree	IP65			
Noise (dB)	<40			
User interface	LED & App			
Digital input/output	DRM, 1 × DI, 2 × DO			
Communication	RS485, Optional: Wi-Fi/4G/Ethernet			
Certifications and Standards				
Grid connection standard	EN 50549, VDE-AR-N 4105, AS/NZS 4777.2, VFR: 2019, TOR Erzeuger Type A			
Safety/EMC standard	IEC 62109-1/-2, IEC 62477-1, EN 61000-6-1/-3			

(1) 4600 for VDE-AR-N 4105 & VDE0126-1-1
(2) Max. output apparent power 3680 VA for TOR Erzeuger Type A